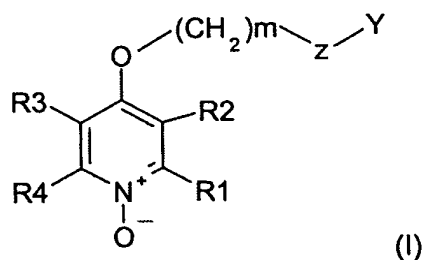


Abstract

A process for preparing substituted pyridine N-oxide compounds of the formula

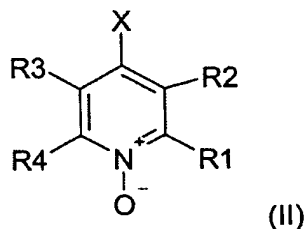


in which R1, R2, R3 and R4 are each H, a carboxyl group or a C₁-C₁₂-alkyl radical which may contain atoms from the group of N, O and S, or R1 and R2 and/or R3 and R4 together may each form an optionally substituted C₄-C₂₀-alkylene radical which may contain atoms from the group of N, O and S,

A is benzyl or a (CH₂)_m group where m may be an integer from 1 to 12,

Z₁ and Z₂ are each independently O or S, and Y is H, a C₁-C₁₂-alkyl radical which may optionally contain atoms from the group of N, O and S, a C₆-C₂₀-aryl radical or a C₅-C₂₀-heterocycle, and the radicals may optionally be substituted,

or Z₂ and Y together form an optionally substituted ring or ring system, in which case the ring or ring system may contain atoms from the group of N, O and S, from the corresponding 4-halopyridine N-oxide of the formula



in which X is chlorine, bromine or iodine, by reacting the compound of the formula (II), in the presence of a

phase transfer catalyst and of a base, with a compound of the formula



in which Z_1 , Z_2 , A and Y are each as defined above, at a temperature up to the reflux temperature, to give the corresponding substituted pyridine N-oxide compound of the formula (I), and also a process for preparing the compound of the formula (II).